

I. Listing of the Claims:

This listing of claims replaces all prior versions or listings of claims in the application:

1. – 128. (Canceled)

129. (Previously presented) An isolated reverse transcriptase protein comprising SEQ ID NO:2.

130. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase may be used in the preparation of full-length cDNA.

131. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase comprises reverse transcriptase produced recombinantly.

132. (Canceled)

133. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase is purified and is greater than 90% pure.

134. (Currently Amended) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a yield of greater than about 1 ug of an amplified RNA (aRNA) from 100 ng of template RNA in a single amplification reaction.

135. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a yield of greater than about 5 ug of an aRNA from 100 ng of template RNA in a single amplification reaction.

136. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a yield of greater than about 7 ug of an aRNA from 100 ng of template RNA in a single amplification reaction.

137. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a yield of greater than about 10 ug of an aRNA from 100 ng of template RNA in a single amplification reaction.

138. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a yield of greater than about 15 ug of an aRNA from 100 ng of template RNA in a single amplification reaction.

139. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a yield of greater than about 25 ug of an aRNA from 100 ng of template RNA in a single amplification reaction.

140. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a yield of greater than about 1 ug of an aRNA from 10 pg of template RNA after a two-round amplification reaction.

141. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a yield of greater than about 2 ug of an aRNA from 10 pg of template RNA after a two-round amplification reaction.

142. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a yield of greater than about 5 ug of an aRNA from 10 pg of template RNA after a two-round amplification reaction.

143. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a yield of greater than about 10 ug of an aRNA from 10 pg of template RNA after a two-round amplification reaction.

144. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a cDNA greater than about 6, 9 or 11 kilobases in a single cDNA synthesis reaction.

145. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a cDNA greater than about 6 to about 15 kilobases in a single cDNA synthesis reaction.

146. (Previously presented) The reverse transcriptase of claim 129, wherein the reverse transcriptase produces a cDNA greater than about 15 kilobases in a single cDNA synthesis reaction.

147. (Previously presented) The reverse transcriptase of claim 129, wherein the DNA polymerase activity is greater than about 200 Units per microgram.

148. (Previously presented) The reverse transcriptase of claim 129, wherein the DNA polymerase activity is between about 0.1 and 300 Units per microgram.

149. (Currently Amended) The reverse transcriptase of claim 129, wherein the RNase H activity is between about 0.1 and about 25 percent of the wild-type MMLV RNase H activity.

150. – 151. (Canceled)

152. (Previously presented) A kit for nucleic acid synthesis, comprising, in a suitable container:

a reverse transcriptase protein of Claim 129; and

a reaction solution for the reverse transcriptase protein.

153. (Previously presented) The kit of claim 152, further comprising an insert that comprises information for using the reverse transcriptase protein.

154. (Currently Amended) The kit of claim 152, wherein the reaction solution comprises a concentrated reverse transcriptase reaction buffer.

155. (Previously presented) The kit of claim 152, further comprising a primer.

156. (Previously presented) The kit of claim 152, wherein the reaction solution comprises a reverse transcriptase buffer.

157. (Previously presented) The kit of claim 152, wherein the reaction solution comprises a PCR buffer.

158. (Previously presented) The kit of claim 152, further comprising a mix of nucleotides.

159. (Previously presented) The kit of claim 152, further comprising containers comprising individual nucleotides.

160. (Previously presented) The kit of claim 152, wherein the reaction solution comprises a buffer for in vitro transcription.

161. (Previously presented) The kit of claim 152, further comprising a template purification column.

162. (Previously presented) The kit of claim 152, further comprising magnetic particles suitable for nucleic acid purification.

163. (Previously presented) A kit for nucleic acid synthesis, comprising, in a suitable container: a reverse transcriptase protein comprising SEQ ID NO:2; and a reaction solution for the reverse transcriptase protein.

164. (Previously presented) A kit for RNA amplification, comprising, in a suitable container: a reverse transcriptase protein comprising SEQ ID NO:2; an oligonucleotide comprising a transcriptional promoter region and oligo(dT) region; a DNA polymerase; and an RNA polymerase.

165. (Previously presented) The kit of claim 164, further comprising an insert that comprises information for using the reverse transcriptase protein.

166. (Previously presented) The kit of claim 164, further comprising a primer.

167. (Previously presented) The kit of claim 164, further comprising a reverse transcriptase buffer.

168. (Previously presented) The kit of claim 164, further comprising a DNA Polymerase buffer.

169. (Previously presented) The kit of claim 164, further comprising a mix of nucleotides.

170. (Previously presented) The kit of claim 164, further comprising containers comprising individual nucleotides.

171. (Previously presented) The kit of claim 164, further comprising a buffer for in vitro transcription.

172. (Previously presented) The kit of claim 164, further comprising a nucleic acid purification column.

173. (Previously presented) The kit of claim 164, further comprising a magnetic particle or particles suitable for nucleic acid purification.

174. (Previously presented) An RT-PCR kit comprising in one or more suitable containers: a reverse transcriptase comprising SEQ ID NO:2, two or more primers, nucleotides, a thermostable DNA polymerase and an RT-PCT buffer.

175. (Currently Amended) The RT-PCR kit of claim 174, wherein the container comprising a reverse transcriptase further comprises one or more further reverse transcriptases in addition to the reverse transcriptase comprising SEQ ID NO:2.